

REMARKS

The present Response is submitted in response to the final Office Action, dated February 12, 2003, where the Examiner has rejected claims 1-5, 7, 9-27 and 42-68. Reconsideration and allowance of pending claims 1-5, 7, 9-27 and 42-68 in view of the following remarks are respectfully requested.

A. Rejection of Claims 53-60 Under 35 USC § 102(b)

The Examiner has rejected claims 53-60 under 35 USC § 102(b) as being anticipated by Stewart, et al. (USPN 5,761,634) ("Stewart"). Applicant respectfully disagrees.

Claim 53 recites in part: "a plurality of speech data signal encoders, including at least a first encoder using a first speech encoding scheme and a second encoder, wherein said first encoder is a fixed bit-rate encoder".

In rejecting independent claim 53, the Examiner states that Stewart discloses that "said first encoder is a fixed bit-rate encoder" at col. 3, lines 17-20, where Stewart reads: "The system provides optimum voice quality and system capacity in that it allows specific encoders to decrease their rate, which improves capacity, as necessary while allowing other encoders to maintain their rates."

As discussed telephonically with the Examiner, applicant respectfully submits that Stewart describes variable bit-rate encoders, such as those based on TIA IS-95 and IS-96 (col. 3, lines 23-30.) Further, Stewart discloses that a variable bit-rate encoder according to IS-96 includes four frame rates, namely 1/8 frame rate, 1/4 frame rate, 1/2 frame rate and full frame rate. Stewart's disclosure at col. 3, lines 17-20, which the Examiner has relied upon, simply refers to maintaining the frame rate of the variable bit-rate encoder. Applicant respectfully submits that "fixed bit-rate encoders" have a settled and well-known meaning in the art, and

maintaining the rate in a variable bit-rate encoder does not transform a variable bit-rate encoder to a fixed bit-rate encoder. In support of this assertion, applicant has enclosed copies of pages 6 and 260-261 from a book by W.B. Kleijn, et al., entitled "Speech Coding and Synthesis", published in 1995. The following excerpts should be noted:

Most existing speech-coding standards describe fixed-rate coders. Fixed-rate coders are simpler to design than variable-rate coders because one does not have to define criteria which determine the bit rate of the coder for a particular time interval. (Page 6, Section 3.1 Bit rate.)

In a *multimode fixed-rate coder*, the coding scheme for each mode operates at the same rate. In other words, the total number of bits for coding a frame is constant regardless of the mode. In a *multimode VBR coder* the total number of bits allocated to a frame may differ with each mode. Such coders are often referred to as variable-rate or VBR coders without explicit reference to their multimode character. (Page 261, Section 2.1. Definitions.)

Applicant respectfully submits that the limitation "wherein said first encoder is a fixed bit-rate encoder" of claim 53 is not disclosed, taught or suggested by Stewart, since Stewart describes a VBR coder and not a fixed bit-rate coder. As shown above, fixed bit-rate coders have a specific meaning in the art and maintaining a variable bit-rate coder at a particular frame rate does not transform a variable bit-rate encoder into a fixed bit-rate coder, as understood by those of ordinary skill in the art.

As described in the background section of the present application, today, a fixed bit-rate encoder, such as G.711, G.726 and G.723.1, can be selected by network providers according to the time of the day, etc. and, as a result, every frame of the speech signal is encoded at a fixed bit-rate using the same coding scheme of the selected encoder. According to the conventional wisdom with respect to the fixed bit-rate encoders, there is no need to analyze and classify the speech signal, since the bit-rate of the selected encoder is fixed and cannot be changed.

Furthermore, conventionally, network providers may also select a variable bit-rate encoder, such as EVRC (or Enhanced Variable Rate Codec) having variable rates of 8.5K, 6.0K, 2.0K and 0.8K according the time of the day or other criteria; however, once such encoder has been selected for a certain period of time, the frame-by-frame encoding is performed using the same encoding scheme, albeit the encoder is a variable bit-rate encoder and the rate may change from frame to frame, or even maintain the rate for a period of time (as stated in Stewart), according to the speech analysis and classification. This is sharply different than applicant's claimed invention.

Applicant respectfully submits that VBR encoders, such as EVRC, are fundamentally different than fixed bit-rate encoders, such as G.711, G.726, G.723.1, etc. and one rate of a variable bit-rate encoders is not considered a fixed bit-rate encoder by one of ordinary skill in the art. Further, none of the references suggests the desirability of encoding one frame of a speech signal using a variable bit-rate coding scheme (such as EVRC) and the next frame using a fixed bit-rate coding scheme (such as G.711), according to one possible application of dependent claim 54. It is respectfully submitted that, for example, there is no support for the Examiner's position that any of the cited references discloses, teaches or suggests that one frame can be encoded using one fixed bit-rate coding scheme (such as G.723.1) and the next frame using a different fixed bit-rate coding scheme (such as G.711), according to one possible application of dependent claim 55.

Accordingly, applicant respectfully submits that claim 53 and its dependent claims 54-60 should be allowed.

B. Rejection of Claims 1, 3-6, 9-16, 18-27 and 42-45 Under 35 USC § 103(a)

The Examiner has rejected independent claims 1, 3-6, 9-16, 18-27 and 42-45 under 35 USC § 103(a) as being unpatentable over Stewart in view of Otani (USPN 6,400,693) ("Otani"). Applicant respectfully disagrees.

Claim 1 recites in part: "a plurality of speech data signal encoders, including at least a first encoder using a first speech encoding scheme and a second encoder using a second speech encoding scheme different from said first speech encoding scheme, wherein said first encoder is a fixed bit-rate encoder".

As stated above, fixed bit-rate coders are fundamentally different than variable bit-rate coders and, thus, Stewart does not disclose, teach or suggest that the first encoder is a fixed bit-rate encoder.

Further, it is respectfully submitted that Otani does not add anything more than what applicant has described in the background section of the present application. In other words, the Examiner is merely relying on Otani to show that a network provider may select encoders using different encoding scheme for a particular period of time, but not for frame-by-frame processing. Applicant does not dispute that there are many different encoding schemes and that network providers may choose one or another based on certain criteria for specific periods of time; however, there is no suggestion in either Stewart or Otani for the desirability to use a different encoding scheme on a frame-by-frame basis and/or that one of the plurality of the encoders is a fixed bit-rate encoder. (See In re Fitch, 972 F.2d 1260 (Fed. Cir. 1992) ("The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification" (emphasis added)); see also In re Chu, 66 F.3d 292, 298 (Fed. Cir. 1995) (In a proper

obviousness determination, "whether the changes from the prior art are 'minor', ... the changes must be evaluated in terms of the whole invention, including whether the prior art provides any teaching or suggestion to one of ordinary skill in the art to make the changes that would produce the patentee's ... device." (citations omitted.) This includes what could be characterized as simple changes, as in *In re Gordon*, 733 F.2d 900, 902, 221 U.S.P.Q. (BNA) 1125, 1127 (Fed. Cir. 1984) (Although a prior art device could have been turned upside down, that did not make the modification obvious unless the prior art fairly suggested the desirability of turning the device upside down). (emphasis added.))) It is respectfully submitted that the references cited by the Examiner do not suggest the desirability of creating the system of claim 1. Accordingly, applicant respectfully submits that claim 1 and its dependent claims 2-5, 7, 9, 42, 46 and 50-52 should be allowed.

Independent claim 10 in part recites "a plurality of speech data signal encoders, including at least a first encoder using a first speech encoding scheme, a second encoder using a second speech encoding scheme different from said first speech encoding scheme, and a third encoder, wherein said first encoder is a fixed bit-rate encoder". Accordingly, it is respectfully submitted that claim 10 and its dependent claims 11-15, 43, 44 and 47 should be allowed at least for the same reasons stated in conjunction with patentability of claim 1.

Independent claim 16 in part recites "selecting one of a plurality of speech encoders according to said data rate, said plurality of speech encoders including at least a first encoder using a first speech encoding scheme and a second encoder using a second speech encoding scheme different from said first speech encoding scheme, wherein said first encoder is a fixed bit-rate encoder". Accordingly, it is respectfully submitted that claim 16 and its dependent

claims 17-21, 45 and 48 should be allowed at least for the same reasons stated in conjunction with patentability of claim 1.

Independent claim 22 in part recites “choosing, according to a predetermined factor, one group from a plurality of groups of speech encoders, said chosen group of speech encoders including at least a first encoder using a first speech encoding scheme and a second encoder using a second speech encoding scheme different from said first speech encoding scheme, wherein said first encoder is a fixed bit-rate encoder”. Accordingly, it is respectfully submitted that claim 22 and its dependent claims 23-27 and 49 should be allowed at least for the same reasons stated in conjunction with patentability of claim 1.

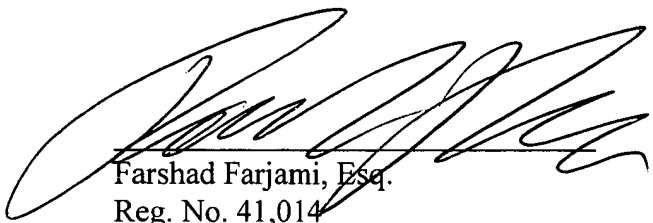
Independent claim 61 in part recites “a plurality of speech data signal encoders, including at least a first encoder using a first speech encoding scheme and a second encoder using a second speech encoding scheme different from said first speech encoding scheme” There is no suggestion or desirability of modification in the cited references, whatsoever, to change the encoding scheme from one frame to the next, e.g., encoding one frame using a variable bit-rate coding scheme and the next frame using a different variable bit-rate coding scheme. Accordingly, it is respectfully submitted that claim 61 and its dependent claims 62-68 should be allowed.

C. Conclusion

For all the foregoing reasons, an early allowance and issuance of claims 1-5, 7, 9-27 and 42-68 pending in the present application are respectfully requested. The Examiner is invited to contact the undersigned for any questions.

Respectfully Submitted;
FARJAMI & FARJAMI LLP

Dated: 3/27/03

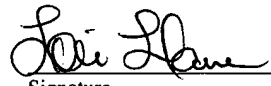

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